

AMENDMENTS

Please cancel claim 5 without prejudice or disclaimer of the subject matter set forth therein.

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1. (currently amended) A method for manufacturing a radiation image conversion panel, comprising the steps of:

a) dispersing a calcined product of stimuable phosphor in a dispersion medium, to obtain a slurry;

b) eliminating grains that are of at least a predetermined size from the slurry of step a), using wet classification wherein a final mesh in the wet classification is no more than 50  $\mu$ m;

c) adding to the slurry of step b), a binder that is substantially soluble therein, to prepare a coating material; and

d) applying the coating material to a support and drying to thereby form a phosphor layer.

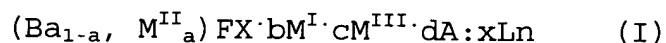
2. (original) A method for manufacturing a radiation image conversion panel according to claim 1, wherein the step of dispersing includes providing a dispersion medium including an organic solvent.

3. (original) A method for manufacturing a radiation image conversion panel according to claim 1, further comprising the step of adjusting density of stimuable phosphor in the slurry by concentrating the slurry after the step of eliminating grains that are of at least a predetermined size, and prior to the step of adding a binder.

4. (original) A method for manufacturing a radiation image conversion panel according to claim 1, wherein the step of eliminating grains that are of at least a predetermined size, includes repeating wet classification a plurality of times.

5. (canceled)

6. (previously presented) A method for manufacturing a radiation image conversion panel according to claim 1, wherein the step of dispersing includes providing a calcined product of a stimuable phosphor that is a rare earth-activated alkaline earth metal fluoro-halide based phosphor, represented by a constitutional formula (I) as follows:



wherein,  $M^{II}$  indicates at least one kind of alkaline earth metal selected from the group consisting of Sr, Ca, and Mg;  $M^I$

indicates at least one kind of alkali metal selected from the group consisting of Li, Na, K, Rb, and Cs;  $M^{III}$  indicates at least one kind of trivalent metal selected from the group consisting of Al, Ga, In, Tl, Sc, Y, Cd, and Lu, wherein compounds that contain  $M^{III}$  exclude  $Al_2O_3$ ; X indicates at least one kind of halogen selected from the group consisting of Cl, Br, and I; Ln indicates at least one kind of rare earth element selected from the group consisting of Ce, Pr, Sm, Eu, Gd, Tb, Dy, Ho, Nd, Er, Tm, and Yb; A indicates at least one kind of metallic oxide selected from the group consisting of  $Al_2O_3$ ,  $SiO_2$ , and  $ZrO_2$ ; and a, b, c, d and x are respectively set so as to satisfy relational expressions  $0 \leq a \leq 0.3$ ,  $0 \leq b \leq 2$ ,  $0 \leq c \leq 2$ ,  $0 \leq d \leq 0.5$ , and  $0 < x \leq 0.2$ .

7. (original) A method for manufacturing a radiation image conversion panel according to claim 1, wherein the step of dispersing includes providing a calcined product of stimuable phosphor in the dispersion medium of an amount to result in 10 to 300 parts by weight based on 100 parts by weight of the dispersion medium.

8. (original) A method for manufacturing a radiation image conversion panel according to claim 1, wherein the step of dispersing includes turbulent stirring using a mixing blade.

9. (original) A method for manufacturing a radiation image conversion panel according to claim 1, wherein the step of eliminating grains that are of at least a predetermined size, includes wet classification employing at least one process selected from the group consisting of filtration and screen vibration.

10. (original) A method for manufacturing a radiation image conversion panel according to claim 1, wherein the step of eliminating grains that are of at least a predetermined size, includes using wet classification employing meshes arranged in a plurality of stages having decreasing mesh sizes.

11. (original) A method for manufacturing a radiation image conversion panel according to claim 9, wherein the filtration is pressure filtration.

12. (original) A method for manufacturing a radiation image conversion panel according to claim 3, wherein the step of adjusting density, includes concentrating the slurry by decantation.

13. (original) A method for manufacturing a radiation image conversion panel according to claim 1, wherein the step of adding the binder includes providing an amount of binder so as to result in a ratio by weight of 1:1 to 1:100 of binder to stimuable phosphor.

14. (previously presented) A method for manufacturing a radiation image conversion panel, comprising the steps of:

- a) dispersing a calcined product of stimuable phosphor in a dispersion medium, to obtain a slurry;
  - b) eliminating grains that are of at least a predetermined size from the slurry of step a), using wet classification;
  - c) substituting the dispersion medium with a solvent capable of substantially dissolving the binder, while maintaining a slurry in steps (a) - (c);
  - d) adding to the slurry of step c), a binder that is substantially soluble therein, to prepare a coating material;
- and
- d) applying the coating material to a support and drying to thereby form a phosphor layer.

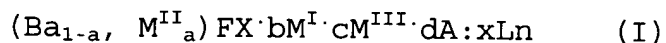
15. (original) A method for manufacturing a radiation image conversion panel according to claim 14, wherein the step of

substituting the dispersion medium includes concentrating the slurry to adjust density of a stimuable phosphor in the slurry.

16. (original) A method for manufacturing a radiation image conversion panel according to claim 14, wherein the step of eliminating grains that are of at least a predetermined size, includes repeating wet classification a plurality of times.

17. (original) A method for manufacturing a radiation image conversion panel according to claim 14, wherein the step of eliminating grains that are of at least a predetermined size, includes using a final mesh size in the wet classification of no more than 50  $\mu\text{m}$ .

18. (previously presented) A method for manufacturing a radiation image conversion panel according to claim 14, wherein the step of dispersing includes providing a calcined product of a stimuable phosphor that is a rare earth-activated alkaline earth metal fluoro-halide based phosphor, represented by a constitutional formula (I) as follows:



wherein,  $\text{M}^{\text{II}}$  indicates at least one kind of alkaline earth metal selected from the group consisting of Sr, Ca, and Mg;  $\text{M}^{\text{I}}$  indicates at least one kind of alkali metal selected from the

group consisting of Li, Na, K, Rb, and Cs;  $M^{III}$  indicates at least one kind of trivalent metal selected from the group consisting of Al, Ga, In, Tl, Sc, Y, Cd, and Lu, wherein compounds that contain  $M^{III}$  exclude  $Al_2O_3$ ; X indicates at least one kind of halogen selected from the group consisting of Cl, Br, and I; Ln indicates at least one kind of rare earth element selected from the group consisting of Ce, Pr, Sm, Eu, Gd, Tb, Dy, Ho, Nd, Er, Tm, and Yb; A indicates at least one kind of metallic oxide selected from the group consisting of  $Al_2O_3$ ,  $SiO_2$ , and  $ZrO_2$ ; and a, b, c, d and x are respectively set so as to satisfy relational expressions  $0 \leq a \leq 0.3$ ,  $0 \leq b \leq 2$ ,  $0 \leq c \leq 2$ ,  $0 \leq d \leq 0.5$ , and  $0 < x \leq 0.2$ .

19. (original) A method for manufacturing a radiation image conversion panel according to claim 15, wherein concentrating the slurry includes using decantation.

20. (currently amended) A method for preparing a coating material for a radiation image conversion panel, comprising the steps of:

(a) dispersing a calcined product of stimuable phosphor in a dispersion medium, to obtain a slurry;

(b) eliminating grains that are of at least a predetermined size from the slurry, using wet classification wherein a final mesh in the wet classification is no more than 50  $\mu$ m; and

(c) adding a binder to the slurry that is substantially soluble therein, to form a coating material.